



Guidelines to manufacturers for the notification of errors in the provisional data on CO₂ emissions from passenger cars and light commercial vehicles

Version of 2019

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CHECK LIST FOR ERROR NOTIFICATIONS

In order to increase the quality of error notifications and decrease the need for follow-up clarifications, manufacturers are strongly encouraged to use this check list.

Please note that the Mh-field is used to determine a manufacturer's performance and the Mp-field to determine the performance of a pool of manufacturers.

In these guidelines "entry" means the content of a parameter (e. g mass); "record" means a series of entries specifying all the parameters for a vehicle version in the monitoring data.

1. Include correct error codes for all changed entries

All records that have been changed must include one of the following error codes in the field "MC" (manufacturer comments):

- *Error code A* shall be used when the entry is changed for a record that can be identified by the manufacturer;
- *Error code B* shall be used if a vehicle cannot be fully identified and is therefore in principle not accepted for records for which the vehicle identification number (VIN) is available;
- *Error code C* shall be used for records which have been changed to "UNKNOWN", "OUT OF SCOPE", individually approved or national small series;
- *Error code D* shall be used only by the final stage manufacturer if it is not the manufacturer of the base vehicle.

Note that error codes B or C should only be used where the available information is clearly insufficient to verify data.

2. Submit the entire dataset

All records attributed to the manufacturer (or pool) according to the Mh-field (or Mp-field) – whether changed or not – need to be submitted with the error notification.

3. Leave entries blank in case of missing data

Entries for which data is missing should be left blank. Please do not use "0" for those entries.

4. Use European Environment Agency's Business Data Repository (BDR)

For the submission of error notifications the European Environment Agency's Business Data Repository (BDR) should be used.

At the same time a summary declaration in line with the example given in Annex I of the Guidelines, shall be sent to the following functional mailboxes: EC-CO2-LDV-IMPLEMENTATION@ec.europa.eu and CO2-monitoring@eea.europa.eu.

5. Access to vehicle identification numbers (VINs) to facilitate the error notification

VINs will be available for both passenger cars and vans newly registered in 2018. VINs reported by Member States will not be published, but notified individually through the European Environment Agency's Business Data Repository (BDR) to the relevant manufacturers (based on

the Mh-field in the monitoring data) with the corresponding ID. Only manufacturers with a BDR account will have access to VIN data (see section 3 of these guidelines for further details on how to create a BDR account).

6. Entries requiring particular attention in the 2018 data set

Particular attention should be given to the following entries in the dataset submitted by Member States due to data quality issues:

- CO₂ emissions (NEDC): verify that the NEDC CO₂ emission entry is complete and accurate for each records;
- Deviation factor (De): verify that a De value is provided for each entry where this is required and that it is accurate; a check is needed, in particular, where a De value is higher than 0.04 and where a zero or negative De value has been reported;
- Verification factor (Vf): verify that a Vf value (1 or 0) is provided for each entry where this is required, i.e. whenever a De value is required (Vf should be left blank in all other cases);
- Eco-innovations (Ernedc) savings and codes (IT): verify that both entries are completed for each relevant record;
- Vehicle interpolation family identifier (VFN): verify that the VFN entry is complete for each relevant record;
- mass in running order (M for cars, Mb, M, TPMLM and Mf for vans): verify that the entries are complete and accurate.

1. INTRODUCTION

This document provides guidance to manufacturers that wish to notify errors in the provisional CO₂ emissions monitoring data¹ to the Commission.

Detailed rules as regards the verification of data concerning new passenger cars are set out in Regulation (EU) No 1014/2010² on monitoring and reporting of data on the registration of new passenger cars pursuant to Regulation (EC) No 443/2009³.

For light commercial vehicles, detailed provisions are set out in Commission Implementing Regulation (EU) No 293/2012⁴ on monitoring and reporting on the registration of new light commercial vehicles pursuant to Regulation (EU) No 510/2011⁵.

Main changes to these Guidelines compared to last year's version are highlighted in yellow.

2. VIN BASED MONITORING DATA QUALITY

2018 is the first year for which Member States have reported the data based on the vehicle identification numbers (VINs) for both newly registered passenger cars and light commercial vehicles. A VIN based monitoring system will make it easier for manufacturers to unambiguously identify the vehicles and to verify the data. However, it also means that the size of the dataset has significantly increased and that new data quality issues may have arisen.

It is therefore of high importance that the data is thoroughly verified, in particular, with regard to those entries that are directly relevant for the calculation of the average specific emissions and the specific emission targets.

3. NOTIFICATION OF ERRORS

3.1. Procedure

Manufacturers can notify the Commission of errors in the provisional CO₂ emissions dataset. The notification must be submitted to the Commission within **three months** from receipt of the Commission's notification of the provisional calculation of the average specific CO₂ emissions and specific emissions targets (see Article 8 of Regulation (EC) No 443/2009 and Article 8 of Regulation (EU) No 510/2011). Only errors notified during this period will be taken into account by the Commission for determining the final average emissions and specific emissions targets.

Manufacturers should notify the errors using the format and error codes indicated in Article 9(3), (4) and (5) of Regulation (EU) No 1014/2010 (cars) and Article 10a of Regulation (EU) No 293/2012 (vans).

In order to improve the exchange of data between manufacturers and the European Environment Agency (the EEA), the EEA has set up an on-line data reporting system, the Business Data

¹ Provisional data for cars will be available at: <http://www.eea.europa.eu/data-and-maps/data/co2-cars-emission-16>; provisional data for vans will be available at: <http://www.eea.europa.eu/data-and-maps/data/vans-12>

² <http://eur-lex.europa.eu/eli/reg/2010/1014/2013-05-08>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02009R0443-20180517> (consolidated version)

⁴ http://eur-lex.europa.eu/eli/reg_impl/2012/293/2014-05-14

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02011R0510-20170914> (consolidated version)

Repository (BDR). The BDR has been developed specifically for the handling of confidential commercial information as well as the handling of large quantities of data. Manufacturers should therefore use this system for uploading error notifications. The BDR user manual is available on CIRCABC: <https://circabc.europa.eu/w/browse/a41f7626-c660-4ee6-9b4b-8f198de8ab5c>.

The error notification shall be submitted by uploading the data on the BDR or, exceptionally, by electronic non-erasable data carrier marked "Notification of error – CO₂ from cars" / "Notification of error – CO₂ from vans" and shall be sent by mail to the following address and electronically to the functional mailboxes:

European Commission
Secretariat-General
1049 Bruxelles/Brussels
Belgique/België

An electronic copy of the notification, including a **summary declaration** in line with the example given in Annex I of these Guidelines, shall be sent to the following functional mailboxes:

EC-CO2-LDV-IMPLEMENTATION@ec.europa.eu
and
CO2-monitoring@eea.europa.eu

The notification of errors is considered valid, if it is uploaded on the BDR (as proven by the receipt that is generated at the moment of the upload) or submitted to the Commission by mail (as proven by postmark, registered mail or similar) at the latest within **three months from the receipt of the Commission's notification as determined by registered mail**, accompanied by a summary declaration as mentioned above.

In the case of **pools**, the notification should be uploaded or submitted by the **pool manager**. Individual pool members may also upload or submit their data separately, but in case of doubt or differences only the data submitted by the pool manager will be considered valid for the finalisation of the data.

In order to deliver the data on the BDR, an Eionet account with user name and password is required (see BDR user manual on CIRCABC). Each manufacturer, or in the case of pools, each pool manager, should therefore provide a contact person to the Commission by sending an email to the following functional mailbox: EC-CO2-LDV-IMPLEMENTATION@ec.europa.eu. The designated contact persons will receive the Eionet account, as well as permission to upload the delivery for each reporting obligation. Please note that the pool manager should be the person designated to upload the data on the BDR for the pool.

Once the notification of errors is uploaded on the BDR, the Commission will assess the error notification and will get back to the manufacturer (or pool) in case notified errors cannot be accepted without further clarification. The manufacturer should reply to such clarification requests within 10 days at the latest. Once the Commission has contacted the manufacturer (or pool) for further clarification, a **maximum period of one month** is available for clarifications. After that period the Commission may not accept any further resubmission and may therefore not be able to take the notified errors into consideration for the final calculations.

3.2. Manufacturer name and contact details

In the notification of errors, manufacturers must indicate the manufacturer name they have notified to the Commission pursuant to Article 8 and 9 of Regulation (EU) No 1014/2010 and Article 9 and 10 of Regulation (EU) No 293/2012. A manufacturer established outside the EU must provide the Commission with the contact details of its EU representative appointed to represent the manufacturer before type approval authorities. Changes to the manufacturer's contact person should be communicated to the Commission without delay via the following functional mailbox: EC-CO2-LDV-IMPLEMENTATION@ec.europa.eu. A template for the notification of manufacturer name is available on CIRCABC ("manufacturer details template")⁶.

If the errors cannot be clearly attributed to data concerning a specific manufacturer, the Commission may not be able to take them into consideration for the final calculation of the targets.

Information related to the possible withdrawal of the United Kingdom from the EU can be found under the following link:

https://ec.europa.eu/info/sites/info/files/file_import/automotive-co2-emissions_en.pdf

3.3. Description of the data

The dataset has been collected and submitted by Member States in accordance with the requirements specified in Annex II to Regulation (EC) No 443/2009 and Annex II to Regulation (EU) No 510/2011. Annex II to these guidelines sets out a detailed description and explanation of the different entries in the dataset. Annex III to these guidelines gives examples of the data record and possible false content.

3.4. Multi-stage vans

In the case an N1 vehicle is type approved in several stages, the base vehicle manufacturer will be responsible for the CO₂ emissions of the completed vehicle (see Section 7 of Annex II to Regulation (EU) No 510/2011). The base vehicle manufacturer is responsible for any multi-stage vehicle which is built including an EC type approved base-vehicle (i.e. also if the final completed vehicle is individually approved).

From 1 September 2019, the provisions on multi-stage vans set out in Annex II to Regulation (EU) No 510/2011 will be amended by Commission Delegated Regulation (EU) 2019//986⁷.

3.5. Manufacturers exempted from meeting a specific emissions target

A car or van manufacturer which, together with all of its connected undertakings, is responsible for less than 1000 new registrations per year is exempt from meeting a specific emission target, unless it has applied for a derogation target. For manufacturers for which no specific emission target applies, the final data to be published will include information on their average CO₂ emissions and vehicle mass.

⁶ <https://circabc.europa.eu/w/browse/a41f7626-c660-4ee6-9b4b-8f198de8ab5c>

⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1560860114482&uri=CELEX:32019R0986>

4. CORRECTION OF ERRORS IN THE MONITORING DATA

4.1. Introduction

Except for the number of registrations and the ID number, other entries may be corrected in accordance with the instructions in Section 3.1.

In view of the switch to VIN-based reporting the 2018 dataset has significantly increased in size. It has also given rise to certain data quality issues for which particular attention is needed. Priority should be given to those entries in the dataset that are directly relevant for the calculation of the specific emission target and the average specific emissions, and in particular those where quality issues are known to exist:

- CO₂ emissions (NEDC): verify that the NEDC CO₂ emission entry is complete and accurate for each record;
- Deviation factor (De): verify that a De value is provided for each entry where this is required and that it is accurate; a check is needed, in particular, where a De value is higher than 0.04 and where a zero or negative De value has been reported;
- Verification factor (Vf): verify that a Vf value (1 or 0) is provided for each entry where this is required, i.e. whenever a De value is required (Vf should be left blank in all other cases);
- Eco-innovations (Ernedc) savings and codes (IT): verify that both entries are completed for each relevant record;
- Vehicle interpolation family identifier (VFN): verify that the VFN entry is complete for each relevant record;
- Mass in running order (M for cars, Mb, M, TPMLM and Mf for vans): verify that the entries are complete and accurate.

As a minimum, manufacturers should verify all of these entries and, where necessary, correct the dataset or complete it where entries are missing. Note that for corrections of De and Vf factor to be accepted, the VFN must also be provided

Where entries for CO₂ emissions and/or mass are missing in a record and manufacturers cannot complete the record because the vehicle cannot be identified, or the record is "out of scope", e.g. reference mass exceeding 2840 kg⁸ in the N1 dataset, the record will remain in the final dataset but will not be used for the calculation of the specific emission targets.

4.2. Correcting the data set

When notifying corrections to the Commission, a manufacturer/pool manager shall include all records and all entries that are relevant, i.e. both those that it considers correct as well as those that have been corrected. The notification shall not include records relating to other manufacturers.

⁸ As reference mass is defined as "mass in running order – 75 kg + 100 kg", all records with mass in running order exceeding 2 815 kg will not be used for the calculation of the targets under Regulation (EU) 510/2011.

Manufacturers/pool managers should not re-submit the whole database covering all manufacturers.

For each correction made, an error code – A, B, C or, in the case of vans, D – should be indicated in a separate column with the heading "MC" (manufacturer comments) together with the record concerned. The error codes represent different possible modifications of the dataset.

A further column "Notes" will also be available for providing information in the case of Error Code D or for any other relevant information that the manufacturer would like to provide to the Commission.

For any correction notified, the Commission may request supporting documents (e.g. a copy of the certificate of conformity or type approval documentation) before approving the correction in the final dataset.

As the Member State competent authority is responsible for the entry for registration, this entry may not be changed by the manufacturer.

A short description of the possible modifications and their implications is given below.

4.2.1. Error Code A

Error Code A shall be used when an entry is changed for a vehicle that can be identified by the manufacturer. This concerns corrections of records where the manufacturer, through the VIN number, has the necessary information about the vehicle to correct or complete the data.

For example, in case eco-innovation savings have not been reported by Member States, a manufacturer may correct the dataset by completing the entries "IT" and "Ernedc" using Error Code A and add the certified savings for the vehicle version concerned.

Following verification by the Commission, the corrected record will be considered for the calculation of the target and specific CO₂ emissions of the manufacturer.

Should the record include the Error Code A but not have been corrected, i.e. the entries concerned are left unchanged, the Commission will use the original record for the final calculation.

4.2.2. Error Code B

Error Code B shall be used when a record contains entries for CO₂ and mass but the vehicle referred to in the record cannot be fully identified, e.g. VIN is not reported, is clearly wrong or the VIN entry is incomplete.

As VINs are now generally available for both passenger cars and light commercial vehicles, the use of Error Code B should be **exceptional.**

When records are marked with Error Code B, no entries in the record should be modified.

Records with Error Code B will be taken into account for the final calculations, but an error margin will be applied to take account of the fact that the values cannot be verified by the manufacturer.

4.2.3. Error Code C

Error Code C shall be indicated in column "MC" if the record refers to a vehicle that is either:

- out of the scope of Regulation (EC) No 443/2009 or (EU) No 510/2011;
or
- individually approved or approved as national small series (see exception below with regard to completed N1 vehicles);
or
- unknown.

Records with Error Code C **will not be taken into account** for the final calculation of the specific emissions target and the average specific emissions. There is no need to modify numerical or text values (except the columns MH and MC as indicated below).

A vehicle falls outside the scope of Regulation (EC) No 443/2009 or Regulation (EU) No 510/2011 if it is a special purpose vehicle⁹ or a second hand vehicle or the production of the vehicle is definitively discontinued and Article 27 of Directive No 2007/46/EC (type approval framework Directive) is no longer applicable. It should be noted that N1 vehicles with a reference mass exceeding 2840 kg are also out of scope.

In these cases Column "MH" should be changed to indicate "OUT OF SCOPE".

A record is "unknown" if it has been attributed to a manufacturer that is unable to identify the vehicle concerned after considering all parameters available in the record.

In this case the entry in column "MH" should be changed to "UNKNOWN".

4.2.4. Error Code D (multi-stage vehicles)

The Error Code D and the additional column "Notes" should be used in cases where only the manufacturer of the final completed vehicle is recorded in the dataset, but the responsibility for the record should be attributed to the base vehicle manufacturer in accordance with Section 7 of Annex II to Regulation (EU) No 510/2011. Where available, the final vehicle manufacturer should provide in the column "Notes" the name of the base vehicle manufacturer as well as the TAN of the base vehicle as stated in the type approval documents or the CoC. Records with Error Code D will remain in the dataset but **will not be used** for the calculation of the specific emissions or the emission targets.

4.2.5. Other cross-cutting issues

4.2.5.1. Errors in the attribution of manufacturer

If a manufacturer considers that it is responsible for a record that has been attributed to another manufacturer or if it has been incorrectly reported by the Member State as AA-IVA (individual approvals) or AA-NSS (national small series), Error Code A should be used. The correction to be made in this case is a change of the manufacturer name in the column "MH".

If the record is transferred from one manufacturer to another, **both manufacturers** have to correct the relevant MH entries and use Error Code A. **In case of a transfer of a record, a copy of the CoC of the vehicles should be included in the error notification.**

⁹ See Article 2(3) of Regulation (EC) No 443/2009 and Regulation (EU) No 510/2011.

Error Code A may also be used in case of a record relating to an individually approved, completed N1 vehicle, if it is not correctly attributed to the EC type approved base vehicle manufacturer.

If a manufacturer considers that it is not responsible for a record and cannot identify the responsible manufacturer, the record should be considered as unknown and Error Code C should be used. In the case of multi-stage vehicles and the attribution of a record to a manufacturer of the final completed vehicle – see Section 4.2.4 (Error Code D).

4.2.5.2. *Contradictory entries*

In the case of contradictory entries, e.g. where the VIN does not match the TAN or the TVV-code, all parameters in the record should be considered for identifying which of the entries are incorrect. If it is possible on that basis to identify the record and correct it, Error Code A applies.

4.2.5.3. *Extreme CO₂ or mass values*

For records that include extreme or unrealistic values for either CO₂ or mass (e.g. mass of 300 kg) or values that do not fall within the range for the TAN, type, variant or version concerned, and where those values cannot be verified due to missing or corrupt data for other relevant parameters, the record should be changed to unknown (Mh = “UNKNOWN”) and Error Code C applies.

4.2.5.4. *Duplicates*

In some cases two records are associated to the same VIN. These records can have different entries in the Mh- and/or MS-field or different entries for mass and/or emissions. These records have been marked as "DUPLICATE" in the Mh-field and are not included in the provisional calculations. Duplicate records are also reported in a separate file in BDR.

Manufacturers should verify these duplicate records and confirm which record should be kept for the final calculations by correcting the Mh-field using Error Code A. Duplicate records to be deleted should be marked with Error Code C.

4.2.5.5. *Deviation factor (De) and verification factor (Vf) used to calculate the correction factor*

Article 6(2) of Implementing Regulation (EU) 2017/1152 (correlation procedure for vans) and Article 7(2) of Implementing Regulation (EU) 2017/1153 (correlation procedure for cars) require that a correction factor is applied for the calculation of the average specific emissions of a manufacturer if, for one or more interpolation families, the deviation factor (“De”) exceeds the value 0.04 or the verification factor (“Vf”) equals 1.

The correction factor is calculated based on the De and Vf factors reported in the dataset and it is therefore essential that those De and Vf factors are accurate. However, a first check of the provisional data for 2018 has indicated a large number of potential errors in these entries.

As a result, the correction factor has not been applied for the calculation of the provisional average specific emissions as notified to the manufacturers. **The correction factor will however be applied for the confirmation of the final data and manufacturers are therefore strongly urged to verify that the De and Vf factors are correctly recorded.** Before confirming the final data, the Commission will inform the manufacturers concerned of the final correction factor that will be applied.

The De and Vf factors shall be recorded for each WLTP interpolation family where a physical test is performed in accordance with point 3.2.6 or point 3.2.7 of Annex I to the abovementioned Correlation Regulations. For all other records the De and Vf entries should be left blank.

De is the **relative** deviation between the NEDC CO₂ value resulting from a physical vehicle test and the manufacturer's declared NEDC CO₂ value. It is calculated in accordance with point 3.2.8 of Annex I to the abovementioned Correlation Regulations and should be expressed with three decimals.

Vf is set to 1 for an interpolation family if the type approval authority finds that the results of the physical vehicle test do not confirm the input data used for the correlation procedure. If not, it is set to 0.

Since those two factors may have an impact on the average specific emissions of a manufacturer, **it is important to verify that the values reported in the provisional dataset are complete and correct**. In particular, De values exceeding 0.04 and negative De values should be specifically checked. Where a De factor of **zero** has been reported, it should be checked whether this means that for this record no De is applicable, or whether it effectively represents a zero deviation between the NEDC CO₂ value resulting from a physical vehicle test and the manufacturer's declared NEDC CO₂ value. In the former case, this entry should be corrected and left blank (Error Code A).

If errors in the De or Vf factors have occurred already at type approval, i.e. the values have been incorrectly recorded in the type-approval certificate, the type-approval authority should be requested to correct the type-approval certificate. The manufacturer should ensure that the De and Vf factors in the CoC correspond to those in the type-approval certificate.

A correction of the De or Vf factor should be indicated by way of Error Code A. In order to validate the correction, it is also **required that the record includes the vehicle interpolation family identifier (VFN)**. The presence of a VFN value in the corrected record should therefore be carefully checked.

ANNEX I
Notification Standard Format

"Notification of error – [*CO₂ from M1 category vehicles / N1 category vehicles*]"

In accordance with Article 8(5) of Regulation (EC) No 443/2009 or Article 8(5) of Regulation (EU) No 510/2011, [*name of the manufacturer or pool and its members*] hereby notifies the Commission of certain errors in the data on CO₂ emissions from vehicles, on the basis of which the following corrections should be made to the provisional calculations provided by the Commission for [*calendar year*]:

- the average specific emissions of CO₂ of [*notified provisional figure*] should be replaced by [*corrected figure*];
- the specific emissions target of [*notified provisional target*] should be replaced by [*corrected target*];
- the difference between the average specific emissions of CO₂ and the specific emissions target should be [*difference*];
- the average mass in running order for all our new [*passenger cars/vans*] in the EU in that calendar year was [*average mass in running order*];
- the correction factor of [*notified provisional figure*] should be replaced by [*corrected figure*];

The above corrections are based on the errors identified in the provisional data on CO₂ emissions published by the Commission as specified in the data files attached.

I hereby declare that I [*name*] am legally empowered to represent [*name of the manufacturer / pool and its members*] and that the information provided in this notification is true and accurate to the best of my knowledge.

Signature

Date

[*name, function*]

[*name of the manufacturer / pool and its members*]

ANNEX II
Description of the data

1. Parameters to be delivered by Member States

For reference, below the parameters to be delivered by Member States for 2018

	Mandatory		Optional		Section in certificate of conformity
	cars	vans	cars	vans	
Year	√	√			N/A
Member State	√	√			N/A
ID number			√	√	N/A
Vehicle identification number	√	√			Section 0.10
Vehicle family identification number	√	√			Section 0.2.3.1
Name of the manufacturer EU standard denomination	√	√			Section 0.5 ¹
Name of the manufacturer OEM declaration	√	√			Section 0.5
Name of the manufacturer National registry denomination	√	√			N/A
Type approval number	√	√			Section 0.10
Type	√	√			Section 0.2
Variant	√	√			Section 0.2
Version	√	√			Section 0.2
Make	√	√			Section 0.1
Commercial name	√			√	Section 0.2.1
Category of the vehicle type approved	√	√			Section 0.4
Category of the vehicle registered	√	√			N/A
Total new registrations	√	√			N/A
Mass in running order	√	√			Section 13 ²
WLTP test mass	√	√			Section 47.1.1
Technically permissible maximum laden mass	N/A	√	N/A		Section 16.1
Default added mass	N/A		N/A	√*	N/A
Specific emissions of CO ₂ (NEDC)	√	√			Section 49.1
Specific emissions of CO ₂ (WLTP)	√	√			Section 49.4
Footprint - Wheelbase	√	√			Section 4
Footprint – track width steering axle	√	√			Section 30
Footprint – track width other axle	√	√			Section 30
Fuel type	√	√			Section 26
Fuel mode	√	√			Section 26.1
Engine capacity	√	√			Section 25
Engine power	√			√	Section 27
Electric energy consumption	√	√			Section 49.2* or section 49.5.1*
Code for innovative technology or group of innovative technology	√	√			Section 49.3.1
Total NEDC CO ₂ emissions reduction due to an innovative technology	√	√			Section 49.3.2.1
Total WLTP CO ₂ emissions reduction due to an innovative	√	√			Section 49.3.2.2

technology					
Deviation factor De (where available)	$\sqrt{***}$	$\sqrt{***}$			Section 49.1
Verification factor (where available)	$\sqrt{***}$	$\sqrt{***}$			Section 49.1

¹ Section 0.5.1 for manufacturer name of the base vehicle in case of multi-stage vehicles

² and Section 14 for mass in running order of the base vehicle in case of multi-stage vehicles

* where available, i.e. for vehicles type-approved in accordance with the NEDC

** where available, i.e. for vehicles type-approved in accordance with the WLTP

*** where available, i.e. in cases when a physical test/double testing was carried out in accordance with point 3.2.6 or point 3.2.7 of Annex I of Regulation (EU) 2017/1153 or Regulation (EU) 2017/1152

2. Provisional database:

The provisional detailed database includes the following entries:

- ID number;
- Member State;
- Vehicle family identification number;
- Name of the Pool;
- Name of the Manufacturer – EU standard denomination;
- Name of the Manufacturer – Manufacturer declaration;
- Name of the Manufacturer – Member State registry denomination;
- Type approval number with its extension;
- Type;
- Variant;
- Version;
- Make;
- Commercial name (optional for N1 category);
- Category of the vehicle type approved;
- Category of the vehicle registered ;
- Registrations;
- Mass in running order (complete / completed vehicle)
- Mass in running order (base vehicle for MSV) (for N1 category);
- WLTP test mass;
- TPMLM (for N1 category);

- Default added mass (for N1 category);
- Final mass (for N1 category);
- Specific CO₂ emissions (NEDC);
- Specific CO₂ Emissions (WLTP);
- Foot-print – wheel base;
- Foot-print – the track width steering axle;
- Foot-print – the track width other axle;
- Fuel type;
- Fuel mode.
- Engine capacity;
- Engine power (optional for N1 category);
- Electric energy consumption;
- Innovative technologies – code of the innovative technology or group of innovative technologies;
- Innovative technologies – CO₂ emissions reduction due to that technology (NEDC);
- Innovative technologies – CO₂ emissions reduction due to that technology (WLTP)
- Deviation factor;
- Verification factor.

N.B. Alongside the provisional data, manufacturers will be notified individually through the BDR of their specific IDs and VINs.

The following entries require a short description and clarification of their meaning:

- *ID number*

There is one unique ID number for each record. This entry shall be used for identifying the record containing an error. The ID number must not be changed.

- *Member State*

The nomenclature of the Member State is given in accordance with ISO standard 3166 alpha-2¹⁰.

- *Vehicle identification number (VIN)*

¹⁰ With the exception of Greece and United Kingdom for which the code is "EL" and "UK" respectively
<http://publications.europa.eu/code/pdf/370000en.htm#pays>
http://www.iso.org/iso/country_codes/iso_3166_code_lists/country_names_and_code_elements.htm

The complete VIN (17 characters) should be taken from section 0.10 of the certificate of conformity and must comply with the VIN stamped on the vehicle body and stated on the manufacturer's statutory plate attached by the vehicle manufacturer on the vehicle. The VIN is schematically described for the purpose of the type approval in section 9.17 of Part I of Annex III to Directive 2007/46/EC.

As regards MSVs, there may be cases where two VINs are stamped on the vehicle and two manufacturer's plates are attached to the vehicle. In such cases the VIN for the base vehicle shall be delivered.

- *Vehicle family identification number (interpolation family identifier) (VFN)*

The VFN is the interpolation family identifier as specified in section 0.2.3.1. of the certificate of conformity.

Until end 2018, the identifier should have the following format: FT-TA-WMI-yyyy-nnnn.

With effect from 1 January 2019, the identifier shall consist of 24 characters in the format set out in point 5.0 of Annex XXI to Regulation (EU) 2017/1151: IP-nnnnnnnnnnnnnnnn-WMI-x.

In this format, "IP" stands for interpolation family. "nnnnnnnnnnnnnnnn" is a string with a maximum of fifteen characters, restricted to using the characters 0-9, A-Z and the underscore character '_'. "WMI" (world manufacturer identifier) is a code that identifies the manufacturer in a unique manner as defined in ISO 3780:2009. "x" is either '1' or '0'.

- *Name of the Pool*

This entry concerns manufacturers that have formed a pool in accordance with Article 7 of Regulation (EC) No 443/2009 or Article 7 of Regulation (EU) No 510/2011. The average mass, average specific CO₂ emissions and specific CO₂ emission target will be calculated for each pool as identified by its pool name.

- *Name of the manufacturer – EU standard denomination*

The database contains three names for each manufacturer. The EU *standard denomination* is assigned by the Commission on the basis of the information submitted by the Member States and the notification by manufacturers in accordance with Article 8 of Regulation (EU) No 1014/2010 and Article 9 of Regulation (EU) No 293/2012. The average mass, average specific CO₂ emissions and specific CO₂ emission target will be calculated for the manufacturer as identified by its EU *standard denomination*.

- *Name of the manufacturer – Manufacturer declaration*

This entry reports the information provided by the manufacturer to the Commission. For those manufacturers who did not provide information on their name, the manufacturer name was assigned by the Commission. The list of manufacturers' names is published on the Commission website¹¹. Any changes in the official name of the manufacturer should be communicated to the Commission without delay in accordance with Article 8 of Regulation (EU) No 1014/2010 and Article 9 of Regulation (EU) No 293/2012.

¹¹ <https://circabc.europa.eu/w/browse/6c4cb908-ea46-4276-9f1f-e21374d4b2fb>

In the case of **multistage vans**, the base vehicle manufacturer should be indicated in the column “Notes” by final vehicle manufacturer together with Error Code D.

- *Name of the manufacturers – denomination contained in the Member State registry*

The name of the manufacturer as contained in the registry of a Member State may differ from the one in the Commission list or provided by the manufacturer. For transparency reasons, Member States were asked to match the official manufacturer name set out in the Commission list with the manufacturer name contained in the national registry.

- *Type approval number (TAN)*

The TAN is set out in section 0.10. of the Certificate of Conformity (CoC) for a particular vehicle or in the type approval certificate (TAD).

- *Type, Variant, Version*

The Type, Variant and Version entries are set out in section 0.2 of the CoC or in the TAD as follows: Type in section 0.2 of Part I of Annex III and Variant, Version in Part I or II of Annex III or section 3 of Annex VIII to Directive 2007/46/EC.

- *Make (Mk)*

The make of the vehicle (for example Volkswagen) is set out in section 0.1 of the CoC or in the TAD, Point 0.1, Part I of Annex III to Directive 2007/46/EC.

- *Commercial name (Cn)*

The commercial name of a vehicle (for example Jetta, Beetle) is set out in section 0.2.1 of the CoC or in the TAD, section 0.2.1, Part I and Part II of Annex III Directive 2007/46/EC.

- *Category of vehicle type approved*

The vehicle category (M1, N1 etc.) is set out in section 0.4 of the CoC or in the TAD, Part I of Annex III to Directive 2007/46/EC.

- *Category of vehicle registered*

This vehicle category in which the vehicle was registered.

- *Registrations*

In the case of VIN based entries it is 1.

- *Mass in running order (complete/completed vehicle) (MRO)*

The mass in running order is the mass of the car with bodywork in running order as stated in section 13 of the CoC or in the TAD, point 2.6.(b) of part I of Annex III to Directive 2007/46/EC..

- *Mass in running order (base vehicle for MSV) (for N1 category)*

In case of MSV, the MRO of base vehicle of category N1 is provided in the section 14 of the CoC and section 2.17.1.of Annex I to Directive 2007/46/EC.

- *Mass in running order (Mf) (for N1 category)*

This is the MRO used for target calculation based on the MRO of the complete vehicle and where applicable, of the completed vehicle where the mass to be used is calculated in accordance with the formulae set out in Section 5 of Annex XII to Regulation (EC) No 692/2008.

- *WLTP test mass*

WLTP test mass is stated in section 47.1.1 of the certificate of conformity.

- *TPMLM (for N1 category)*

Technically permissible maximum laden mass stated by the vehicle manufacturer is the value set out in point 16.1. of the CoC or in section 2.8. of the TAD, Part I of Annex III to Directive 2007/46/EC.

- *Default added mass (for N1 category)*

For MSV, the DAM is specified in the TAD point 2.17.2. of Annex I to Directive 2007/46/EC.

In case of VIN based data delivery the default added mass may be submitted where applicable for MSVs instead of MRO of the base vehicle and TPMLM. In case of data without VIN the DAM shall be provided where applicable for MSVs if MRO of the base vehicle and TPMLM cannot be provided.

The field Mf shows the mass value to be taken into account for the calculations of the specific emission targets. For multi-stage vehicles this field contains the sum of the mass in running order of the base vehicle and the DAM which is rounded to the nearest two decimal places. For all other vehicles the value equals the mass in running order of the complete/completed vehicle.

- *Specific CO₂ emissions (NEDC)*

The NEDC CO₂ value is stated in section 49.1 of the CoC (entry "combined" or "weighted combined" in case of hybrid-electric OVC vehicles) and in the TAD, section 3 of Annex VIII to Directive 2007/46/EC.

- *Specific CO₂ emissions (WLTP)*

The WLTP CO₂ value is stated in section 49.4 of the CoC (entry "combined" or "weighted combined" in case of hybrid-electric OVC vehicles).

- *Footprint – wheelbase, axle track(s)*

Wheelbase is stated in section 4 of the CoC or Point 2.1 of Part 1 of Annex III to Directive 2007/46/EC.

Axle track(s) are stated in Section 30 of the CoC or in the TAD, section 2.1, Part I of Annex III to Directive 2007/46/EC. In case the front and rear axle have different widths, the maximum value should be reported.

- *Fuel type, fuel mode*

Fuel type is specified in section 26 of the certificate of conformity or in type approval documentation in section 3.2.2.1, Part I of Annex III to Directive 2007/46/EC.

Fuel mode is specified in section 26.1 of the certificate of conformity or in the type approval documentation in section 3.2.2.4 of the, Part I of Annex III to Directive 2007/46/EC.

The following table specifies the entries for fuel type and fuel mode, for each fuel combination. For the fuel mode the permitted entries are:

- "M" for mono-fuel vehicles;
- "B" for bi-fuel vehicles;
- "E" for battery electric vehicles (BEV), i.e. "pure" electric vehicles (NOT hybrid vehicles)

Fuel combination	Fuel type to be reported	Fuel mode to be reported	CO₂ value to be reported (entry "combined" unless mentioned otherwise)
Petrol	Petrol	M	One value in the CoC
Diesel	Diesel	M	One value in the CoC
LPG	LPG	M	One value in the CoC
NG	NG	M	One value in the CoC
Hydrogen	Hydrogen	M	One value in the CoC
Petrol-LPG	LPG	B	Value for LPG
Petrol-NG	NG-biomethane	B	Value for NG
Petrol-hydrogen	Hydrogen	B	Value for petrol
Electric	Electric	E	0 (zero)
Hybrid electric vehicle Off vehicle charging (OVC) (plug-in hybrid)	Fuel type combination with electricity: Petrol/Electric; E85/Electric; Diesel/Electric; Hydrogen/Electric	M	One value in the CoC (weighted, combined)
Hybrid electric vehicle Not off-vehicle charging (NOVC) (Non plug-in hybrid)	Fuel type stated in COC: Petrol; E85; Diesel	M	One value in the CoC
Multiple fuels	Take the lowest CO ₂ value between all possible combinations of two fuels.		

Electric vehicles (BEV) and (plug-in) hybrid electric vehicles (OVC/NOVC) can be identified, using section 23 of the certificate of conformity for electric vehicles and section 23.1 for hybrid electric vehicles. The relevant sections in the type approval documentation are sections 3.4.1 and 3.4.2. of Part I of Annex III to Directive 2007/46/EC respectively.

For hybrid electric off-vehicle charging (OVC), i.e. plug-in hybrid electric vehicles, the weighted average CO₂ value is specified in section 49.1. (NEDC) and section 49.4 (WLTP) of the certificate of conformity. The electric energy consumption is specified in section 49.2. of the certificate of conformity for vehicles type-approved in accordance with the NEDC.

Hybrid electric not off-vehicle charging (NOVC) or "non plug-in hybrid" vehicles cannot take electric energy from external sources and are only fuelled with one of fuel types specified in section 26 of the CoC. The CO₂ value for that fuel should be reported.

Multi-fuel vehicles are vehicles other than those specifically mentioned in the table above, which are capable of running on various combinations of fuel types. **In those cases, the lowest CO₂ figures of all possible combinations of two fuels should be reported.**

- Engine capacity and engine power

The "engine capacity" is specified in Section 25 of the CoC or point 3.2.1.3 of the TAD - Part I of Annex III to Directive 2007/46/EC. The "engine power" (i.e. the declared maximum net power) is specified in Section 27.3 of the CoC or point 3.2.1.8 of the TAD - Part I of Annex III to Directive 2007/46/EC.

- *Electric energy consumption*

The electric energy consumption is stated in Section 49.2 of the CoC or Section 3 of the TAD - Annex VIII to Directive 2007/46/EC. It allows identifying pure electric or plug-in hybrid vehicles.

- *Innovative technologies – code of the innovative technology or group of innovative technologies*

The general code of the eco-innovation or group of eco-innovations is indicated in Section 49.3.1. of the CoC or in the TAD, Section 3.5.3. of Annex I to Directive 2007/46/EC or Section 4 of Annex VIII to that Directive. The entry should include the code of the approval authority (e.g. "e1") and the individual code of each eco-innovation (e.g."1"). For example, an eco-innovation type-approved by the German type-approval authority should be entered as "e1 3".

Note that in 2018 no eco-innovations were approved for light commercial vehicles.

- *Innovative technologies – CO₂ emissions reduction due to that technology (ErNEDC)*

The NEDC CO₂ emission savings to be reported are specified in Section 49.3.2.1 of the CoC or in the TAD Section 3.5.3.3. of Annex I to Directive 2007/46/EC or Section 4 of Annex VIII to that Directive.

- *Innovative technologies – CO₂ emissions reduction due to that technology (ErWLTP)*

The WLTP CO₂ emission savings to be reported are specified in Section 49.3.2.2 of the CoC (WLTP eco-innovations available in 2018).

- *Deviation factor and verification factor*

See section 4.2.5.5 of this guidance document.

ANNEX III
Example of data records and possible false content

The column *field length* is the total length of the data field while the *content* contains more information on the maximum, minimum values and/or details on the content. For example, a decimal number with field length 6 and content 3 decimals means a number with maximum 3 integers, a point separator and 3 decimal digits.

The column *false content* gives examples of data being incorporated in an **incorrect format**. Typical false entries are:

- The separator is a comma. The correct separator is a point;
- The separator of thousands shall not be used;
- Rounding should be as reported in the column *sample content*. General mistakes could be reporting decimals while expecting integer values. The value 142 indicates a value bigger or equal to 141.5 and smaller than 142.5.

[OEM name]_corrected_data M1 category

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
ID	ID	Text	Max 30	-	-	-	-	Internal code in MS database. Used to identify a single row of data. Should not be changed.
Member State	MS	Text	Max 2	-	CH	Switzerland		In accordance with ISO standard 3166
Vehicle identification number	VIN	Text	Max 17	-				17 characters
Vehicle family identification number	VFN	Text	Max 24	-	IP-nnnnnnnnnnnnnnn-WMI-x	RM21BD2		
Name of the Pool	MP	Text	Max 120	-	-	-		https://circabc.europa.eu/w/browse/3c090b5c-c2c5-4a7f-a04f-16e665532ecd
Manufacturer name EU standard denomination	MH	Text	Max 120	-	-	-	-	This is the short name assigned by the Commission to easily identify each manufacturer. This denomination will not contain any special character and it is contained in the list of manufacturers on CIRCABC : https://circabc.europa.eu/w/browse/6c4cb908-ea46-4276-9f1f-e21374d4b2fb
Manufacturer name OEM declaration	MAN	Text	Max 120	-	-	-	-	This is the name stated by the manufacturer in accordance with Article 8 of Regulation (EU) No 1014/2010. It is contained in the list of manufacturers on CIRCABC: https://circabc.europa.eu/w/browse/6c4cb908-ea46-4276-9f1f-e21374d4b2fb
Manufacturer name MS registry denomination	MMS	Text	Max 120	-	-	-	-	This is the name for the manufacturer as contained in the national registry of the Member State.
Type approval number	TAN	Text	Max 30	-	e1*2001/116*0249*02	e1*2001/116*249*02	-	-
Type	T	Text	Max 120	-	-	-	-	-
Variant	Va	Text	Max 120	-	-	-	-	-
Version	Ve	Text	Max 120	-	-	-	-	-
Make	Mk	Text	Max 120	-	-	-	-	-
Commercial name	Cn	Text	Max 120	-	-	-	-	-
Category of the vehicle type approved	Ct	Text	Max 3	-	M1; M1G	-	-	-
Category of the vehicle registered	Cr	Text	Max 3	-	M1; M1G			
Total new registrations	R	Integer	-	Min: 1	1203	1203.4	-	Should not be changed.

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
						1'203		
Mass	M	Integer number	Max 4	Min: 300 Max: 5000	1589	1589.4 1'589	kg	Mass in running order (not actual mass).
WLTP test mass	MT	Integer number	Max 4	Min: 300 Max: 5000	1589	1589.8 1'589	kg	Test mass of the vehicle (not actual mass)
Specific CO ₂ Emissions (NEDC)	Enedc	Integer	Max 3	Min: 0 Max: 700	142	142.34	g/km	"Combined" value or, in the case of hybrid off vehicle charging vehicles, "weighted combined"
Specific CO ₂ Emissions (WLTP)	Ewltp	Integer	Max 3	Min: 0 Max: 700	142	142.34	g/km	"Combined" value or, in the case of hybrid off vehicle charging vehicles, "weighted combined"
Wheel Base	W	Integer	Max. 4	Min: 500 Max: 6000	3300	3300.1 3'300	mm	
Axle width steering axle	At1	Integer	Max. 4	Min: 500 Max: 3000	1600	1600.1 1'600	mm	
Axle width other axle	At2	Integer	Max. 4	Min: 500 Max: 3000	1600	1600.1 1'600	mm	
Fuel type	Ft	Text	Max 120	petrol	petrol	gasoline	-	
Fuel mode	Fm	Text	1	M:Mono fuel B: Bifuel E:Electric	M	A	-	See table in Annex II
Engine capacity	Ec	Integer	Max. 4	Min: 0	1589	1589.4 1'589	cm ³	Blank for electric vehicles
Engine power	Ep	Integer	Max 3	Min: 0	158	158.4 158,4	kW	This field is optional. Information is intended to improve vehicle identification and to be used for data assessments.
Electric energy consumption	Z	integer	Max 3	Min: 0	101	101.4	Wh/km	Following the Annex XII of Commission Regulation (EC) No 692/2008
Innovative technology or group of innovative technologies	IT	text	Max 25	Min 3	e1 10 15	1 10 15	-	
Emissions reduction through innovative technologies (NEDC)	Ernedc	Nearest one decimal point	Max 4	Min 1.0	1.2	0.9	g/km	
Emissions reduction through innovative technologies (WLTP)	Erwltp	Nearest one decimal	Max 4	Min 1.0	1.2	0.9	g/km	

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
								point
Deviation factor	De	Three decimal points	5	Min. -1	0.042	1,5	-	
Verification factor	Vf	Integer	1	0, 1	-	-	-	
Manufacturer comments	MC	Text	1	A, B, C				Code A, if the records have been changed by the manufacturer; Code B, if the vehicle is unidentifiable; Code C, see section 3.1.3.
Notes	N	Text	200					The entry could be used for any kind of comments where necessary.

[OEM name]_corrected_data N1 category

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
ID	ID	Text	Max 30	-	-	-	-	Internal code in MS database. Used to identify a single row of data. Should not be changed.
Member State	MS	Text	Max 2	-	CH	Switzerland		In accordance with ISO standard 3166
Vehicle identification number	VIN	Text	Max 17					17 characters
Vehicle family identification number	VFN	Text	Max 24	-	IP- nnnnnnnnnnnn nnn-WMI-x	RM21BD2		
Name of the Pool	MP	Text	Max 120	-	-	-		See : https://circabc.europa.eu/w/browse/afed517d-5f6b-4fdc-ad44-7c5e4947b9a4
Manufacturer name EU standard denomination	MH	Text	Max 120	-	-	-		This is the short name assigned by the Commission service to easily identify each manufacturer. This denomination will not contain any special character and it is contained in the list of manufacturers on CIRCABC.
Manufacturer name OEM declaration Complete/ base vehicle	MAN	Text	Max 120	-	-	-		This is the name stated by the manufacturer in accordance with Article 9 of Regulation (EU) No 293/2012. It is contained in the list of manufacturers on CIRCABC: https://circabc.europa.eu/w/browse/6c4cb908-ea46-4276-9f1f-e21374d4b2fb In case of multistage vans the name of the base vehicle manufacturer should be indicated.

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
Manufacturer name MS registry denomination	MMS	Text	Max 120	-	-	-	-	This is the name for the manufacturer as contained in the national registry of the Member State. In case of multistage vans the name of the final vehicle manufacturer should be indicated.
Type approval number	TAN	Text	Max 30	-	e1*2001/116*0 249*02	e1*2001/116* 249*02	-	See section 0.2. or 0.10 of the CoC.
Type	T	Text	Max 120	-	-	-	-	See section 0.2. of the CoC..
Variant	Va	Text	Max 120	-	-	-	-	See section 0.2. of the CoC..
Version	Ve	Text	Max 120	-	-	-	-	See section 0.2. of the CoC.
Make	Mk	Text	Max 120	-	-	-	-	
Commercial name	Cn	Text	Max 120	-	-	-	-	
Category of the vehicle type approved	Ct	Text	Max 3	-	N1; N1G	-	-	-
Category of the vehicle registered	Cr	Text	Max 3	-	N1; N1G	-	-	-
Total new registrations	R	Integer	-	Min: 1	1	1.4	-	Should not be changed.
Mass in running order Completed/complete vehicle	M	Integer	Max 4	Min: 300 Max: 5000	1589	1589.4 1'589	kg	This field should be left blank in case this information is not available for MSV second stage.
Mass in running order Base vehicle	MB	Integer	Max 4	Min: 300 Max: 5000	1589	1589.4 1'589	kg	Should be filled in for MSV manufacturer responsible for CO ₂ emissions.
WLTP test mass	Mt	Integer number	4	Min: 300 Max: 5000	1589	1589.8 1'589	kg	Test mass of the vehicle (not actual mass)
Technically permissible maximum laden mass	TPMLM	Integer	Max 4	Min: 300 Max: 5000	1589	1589.4 1'589	kg	This should be the TPMLM of the base vehicle. This will be required for calculating the default added mass used for calculating the targets in the case of multistage vans.
Default added mass	DAM	Integer			200	200.4	kg	DAM should be delivered for MSV, where applicable, and as specified in the TAD. In case of MSV indicate the base vehicle TPMLM if it is different from completed vehicle TPMLM
Final mass	Mf	Nearest two decimal	Max. 6	Min 300.00 Max 6000.00	1589.22	1'589	kg	Only for vans

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
			point					
Specific CO ₂ Emissions (NEDC)	Enedc	Integer	Max 3	Min: 0 Max: 700	142	142.34	g/km	For the indication of Battery Electric Vehicles (BEVs), which are "pure" electric vehicles, the letter "E" in the entry "fuel mode" should be used.
Specific CO ₂ Emissions (WLTP)	Ewltp	Integer	3	Min: 0 Max: 700	142	142.34	g/km	"Combined" value or "weighted combined " value in case of Hybrid electric vehicles OVC (plug-in)
Wheel Base	W	Integer	Max. 4	Min: 500 Max: 9999	3300	3300.1 3'300	mm	
Axle width steering axle	At1	Integer	Max. 4	Min: 500 Max: 3000	1600	1600.1 1'600	mm	
Axle width other axle	At2	Integer	Max. 4	Min: 500 Max: 3000	1600	1600.1 1'600	mm	
Fuel type	Ft	Text	Max 120	petrol	petrol	gasoline	-	
Fuel mode	Fm	Text	1	M: Mono fuel B: Bifuel E: electric	M	A	-	See table in Annex II.
Engine capacity	Ec	Integer	Max. 5	Min: 0	1589	1589.4 1'589	cm ³	Blank for electric vehicles
Engine power	Ep	Integer	Max 3	Min: 0	158	158.4 158,4	kW	This field is optional. Information is intended to improve vehicle identification.
Electric energy consumption	Z	integer	Max 3	Min: 0	101	101.4	Wh/km	
Innovative technology or group of innovative technologies	IT	text	Max 25	Min3	e1 10 15	1 10 15	-	
Emissions reduction through innovative technologies (NEDC)	Ernedc	Nearest one decimal point	Max 4	Min 1.0	1.2	0.9	g/km	
Emissions reduction through innovative technologies (WLTP)	Erwltp	Nearest one decimal point	Max: 3	Min:1.0	1.2	0,9	g/km	
Deviation factor	De	Three	Max: 5	Min: -1	0.042	1,5	-	

Parameter	Short name	Format	Field length (min/max/rules)	Content (min/max/rules)	Sample content	False content	Unit	Remarks
		decimal points						
Verification factor	Vf	Integer	1	Min: 0	-	-	-	
Manufacturer comments	MC	Text	1	A,B,C,D	A	N	-	Code A, if the vehicle is identifiable and the records have been changed by the manufacturer; Code B, if the vehicle is unidentifiable; Code C, if the vehicle is unknown; Code D, if the vehicle is a multistage van and the manufacturer indicated is not the responsible base vehicle manufacturer.
Notes	N	Text	200				-	Entry should be used in case of the error code D for providing details of base vehicle manufacturer. The entry should also be used for any kind of comments where necessary.